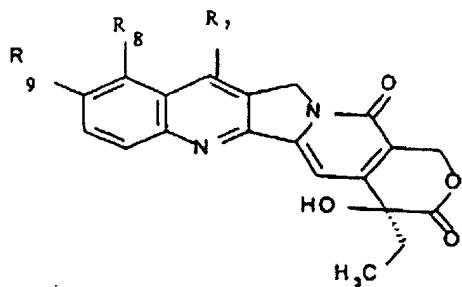


AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-115. (Canceled).

116. (New) A method of intracellular delivery into tumor cells of taxol or a camptothecin derivative of formula



wherein: R₇ is a -C(R₁₁)=N-O_(n)R₁₀ group, wherein R₁₀ is hydrogen or a C₁-C₅ alkyl or C₂-C₅ alkenyl group, linear or branched or C₃-C₁₀ cycloalkyl, group or a linear or branched (C₃-C₁₀) cycloalkyl - (C₁-C₅) alkyl group, or C₆-C₁₄ aryl, or a linear or branched (C₆-C₁₄) aryl - (C₁-C₅) alkyl group, or a heterocyclic or linear or branched heterocyclo - (C₁-C₅) alkyl group, said heterocyclic group containing at least a heteroatom selected from the group consisting of nitrogen atom, optionally substituted with a (C₁-C₅) alkyl group, and/or oxygen and/or sulfur; said alkyl, alkenyl, cycloalkyl, cycloalkylalkyl, aryl, aryl-alkyl, heterocyclic or heterocyclo-alkyl groups, being optionally substituted with other groups selected from the group consisting of: halogen, hydroxy, C₁-C₅ alkyl, C₁-C₅ alkoxy, phenyl, cyano, nitro, -NR₁₂R₁₃, wherein R₁₂ and R₁₃, which may be the same or different, are hydrogen, linear or branched (C₁-C₅) alkyl; a

pharmaceutically acceptable ester of the -COOH group; or the CONR₁₄R₁₅ group, wherein R₁₄ and R₁₅, which may be the same or different, are hydrogen or linear or branched (C₁-C₅) alkyl; or R₁₀ is a (C₆-C₁₀) aroyl residue optionally substituted by one or more groups selected from the group consisting of: halogen, hydroxy, linear or branched (C₁-C₅) alkyl, C₁-C₅ alkoxy, phenyl, cyano, nitro, -NR₁₆R₁₇, wherein R₁₆ and R₁₇, which may be the same or different, is hydrogen, linear or branched (C₁-C₈) alkyl;

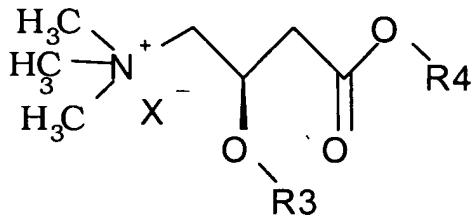
n is the number 0 or 1;

R₁₁ is hydrogen, linear or branched C₁-C₅ alkyl, linear or branched C₂-C₅ alkenyl, C₃-C₁₀ cycloalkyl, (C₃-C₁₀) cycloalkyl - linear or branched (C₁-C₅) alkyl, C₆-C₁₄ aryl, (C₆-C₁₄) aryl - linear or branched alkyl (C₁-C₅);

R₈ and R₉, which may be the same or different are hydrogen, hydroxy, linear or branched C₁-C₅ alkoxy;

their N₁-oxides, their single isomers, in particular the syn and anti isomers of the-C(R₁₁)=N-O_(n)R₁₀ group, their enantiomers, diastereoisomers and admixtures, the pharmaceutically acceptable salts thereof;

using a liposome comprising a compound of formula (II)



(II)

where:

R₃ is an acyl chain selected from the group consisting of palmitoyl and stearoyl;

R₄ is an alkyl chain selected from the group consisting of undecyl and tetradecyl; and

X⁻ is the anion of a pharmacologically acceptable acid,

117. (New) The method according to claim 116, in which X⁻ is selected from the group consisting of chloride; bromide; iodide; aspartate; acid aspartate; citrate; acid citrate; tartrate; acid tartrate; phosphate; acid phosphate; fumarate; acid fumarate; glycerophosphate; glucose phosphate; lactate; maleate; acid maleate; mucate; orotate; oxalate; acid oxalate; sulphate; acid sulphate; trichloroacetate; trifluoroacetate; methane sulphonate; pamoate and acid pamoate.

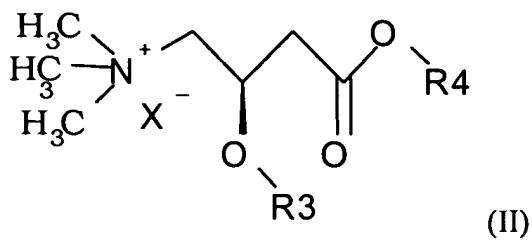
118. (New) The method according to claim 116, in which the compound of formula (II) is selected from the group consisting of palmitoyl L-carnitine chloride undecyl ester; stearoyl L-carnitine chloride undecyl ester; stearoyl L-carnitine chloride tetradecyl ester; palmitoyl L-carnitine chloride tetradecyl ester.

119. (New) The method according to claim 116, in which said derivative of camptothecin is selected from the group consisting of 7-benzyloxyiminomethylcamptothecin or 7-t-butoxyiminomethylcamptothecin.

120. (New) The method according to claim 116, in which the liposome additionally contains helper lipids.

121. (New) The method according to claim 120, in which said helper lipid is selected from the group consisting of cholesterol, 1-palmitoyl-2-oleoyl phosphatidyl choline or dioleyl phosphatidyl choline.

122. (New) A composition comprising a liposome comprising a compound of formula (II)



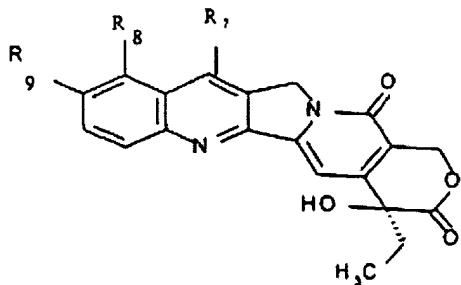
where:

R₃ is an acyl chain selected from the group consisting of palmitoyl and stearoyl;

R₄ is an alkyl chain selected from the group consisting of undecyl and tetradecyl;

and

X⁻ is the anion of a pharmacologically acceptable acid, said liposome comprising taxol or a camptothecin derivative of formula



wherein: R₇ is a -C(R₁₁)=N-O_(n)R₁₀ group, wherein R₁₀ is hydrogen or a C₁-C₅ alkyl or C₂-C₅ alkenyl group, linear or branched or C₃-C₁₀ cycloalkyl, group or a linear or branched (C₃-C₁₀) cycloalkyl - (C₁-C₅) alkyl group, or C₆-C₁₄ aryl, or a linear or branched (C₆-C₁₄) aryl - (C₁-C₅) alkyl group, or a heterocyclic or linear or branched heterocyclo - (C₁-C₅) alkyl group, said heterocyclic group containing at least a heteroatom selected from the group consisting of nitrogen atom, optionally substituted with a (C₁-C₅) alkyl group, and/or oxygen and/or sulfur; said alkyl, alkenyl, cycloalkyl, cycloalkylalkyl, aryl, aryl-alkyl, heterocyclic or heterocyclo-alkyl groups, being optionally substituted with other groups selected from the group consisting of:

halogen, hydroxy, C₁-C₅ alkyl, C₁-C₅ alkoxy, phenyl, cyano, nitro, -NR₁₂R₁₃, wherein R₁₂ and R₁₃, which may be the same or different, are hydrogen, linear or branched (C₁-C₅) alkyl; a pharmaceutically acceptable ester of the -COOH group; or the-COCONR₁₄R₁₅ group, wherein R₁₄ and R₁₅, which may be the same or different, are hydrogen or linear or branched (C₁-C₅) alkyl; or R₁₀ is a (C₆-C₁₀) aroyl residue optionally substituted by one or more groups selected from the group consisting of: halogen, hydroxy, linear or branched (C₁-C₅) alkyl, C₁-C₅ alkoxy, phenyl, cyano, nitro, -NR₁₆R₁₇, wherein R₁₆ and R₁₇, which may be the same or different, are hydrogen, linear or branched (C₁-C₈) alkyl;

n is the number 0 or 1;

R₁₁ is hydrogen, linear or branched C₁-C₅ alkyl, linear or branched C₂-C₅ alkenyl, C₃-C₁₀ cycloalkyl, (C₃-C₁₀) cycloalkyl - linear or branched (C₁-C₅) alkyl, C₆-C₁₄ aryl, (C₆-C₁₄) aryl - linear or branched alkyl (C₁-C₅);

R₈ and R₉, which may be the same or different is hydrogen, hydroxy, linear or branched C₁-C₅ alkoxy;

their N₁-oxides, their single isomers, in particular the syn and anti isomers of the-C(R₁₁)=N-O_(n)R₁₀ group, their enantiomers, diastereoisomers and admixtures, the pharmaceutically acceptable salts thereof.

123. (New) The composition according to claim 122, in which X⁻ is selected from the group consisting of chloride; bromide; iodide; aspartate; acid aspartate; citrate; acid citrate; tartrate; acid tartrate; phosphate; acid phosphate; fumarate; acid fumarate; glycerophosphate; glucose phosphate; lactate; maleate; acid maleate; mucate; orotate; oxalate; acid oxalate; sulphate; acid sulphate; trichloroacetate; trifluoroacetate; methane sulphonate; pamoate and acid pamoate.

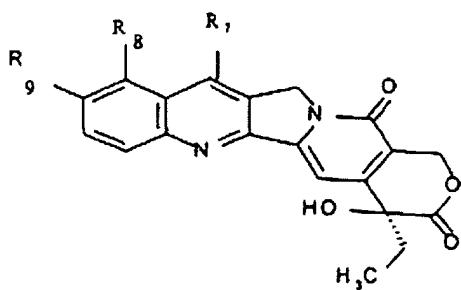
124. (New) The composition according to claim 122, in which the compound of formula (II) is selected from the group consisting of palmitoyl L-carnitine chloride undecyl ester; stearoyl L-carnitine chloride undecyl ester; stearoyl L-carnitine chloride tetradecyl ester; palmitoyl L-carnitine chloride tetradecyl ester.

125. (New) The composition according to claim 122, in which the liposome additionally contains helper lipids.

126. (New) The composition according to claim 125, in which said helper lipid is selected from the group consisting of cholesterol, 1-palmitoyl-2-oleoyl phosphatidyl choline or dioleyl phosphatidyl choline.

127. (New) The composition according to claim 122, in which the composition is administered orally, parenterally, intravenously, intramuscularly, subcutaneously, transdermally or in the form of a nasal mouth spray.

128. (New) A method of transporting an antitumor drug to the target organ of a subject in need of antitumor treatment, wherein said drug is selected from the group consisting of taxol or a camptothecin derivative of formula



wherein: R₇ is a -C(R₁₁)=N-O_(n)R₁₀ group, wherein R₁₀ is hydrogen or a C₁-C₅ alkyl or C₂-C₅ alkenyl group, linear or branched or C₃-C₁₀ cycloalkyl, group or a linear or branched (C₃-C₁₀) cycloalkyl - (C₁-C₅) alkyl group, or C₆-C₁₄ aryl, or a linear or branched (C₆-C₁₄) aryl - (C₁-

C_5) alkyl group, or a heterocyclic or linear or branched heterocyclo - (C_1 - C_5) alkyl group, said heterocyclic group containing at least a heteroatom selected from the group consisting of nitrogen atom, optionally substituted with a (C_1 - C_5) alkyl group, and/or oxygen and/or sulfur; said alkyl, alkenyl, cycloalkyl, cycloalkylalkyl, aryl, aryl-alkyl, heterocyclic or heterocyclo-alkyl groups, being optionally substituted with other groups selected from the group consisting of: halogen, hydroxy, C_1 - C_5 alkyl, C_1 - C_5 alkoxy, phenyl, cyano, nitro, $-NR_{12}R_{13}$, wherein R_{12} and R_{13} , which may be the same or different, are hydrogen, linear or branched (C_1 - C_5) alkyl; a pharmaceutically acceptable ester of the $-COOH$ group; or the $-CONR_{14}R_{15}$ group, wherein R_{14} and R_{15} , which may be the same or different, are hydrogen or linear or branched (C_1 - C_5) alkyl; or R_{10} is a (C_6 - C_{10}) aroyl residue optionally substituted by one or more groups selected from the group consisting of: halogen, hydroxy, linear or branched (C_1 - C_5) alkyl, C_1 - C_5 alkoxy, phenyl, cyano, nitro, $-NR_{16}R_{17}$, wherein R_{16} and R_{17} , which may be the same or different, are hydrogen, linear or branched (C_1 - C_8) alkyl;

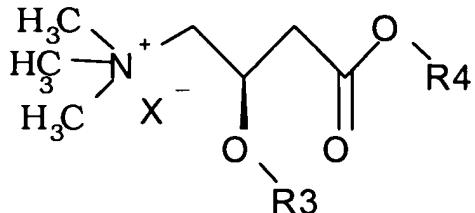
n is the number 0 or 1;

R_{11} is hydrogen, linear or branched C_1 - C_5 alkyl, linear or branched C_2 - C_5 alkenyl, C_3 - C_{10} cycloalkyl, (C_3 - C_{10}) cycloalkyl - linear or branched (C_1 - C_5) alkyl, C_6 - C_{14} aryl, (C_6 - C_{14}) aryl - linear or branched alkyl (C_1 - C_5);

R_8 and R_9 , which may be the same or different are hydrogen, hydroxy, linear or branched C_1 - C_5 alkoxy;

their N_1 -oxides, their single isomers, in particular the syn and anti isomers of the- $C(R_{11})=N-O_{(n)}R_{10}$ group, their enantiomers, diastereoisomers and admixtures, the pharmaceutically acceptable salts thereof;

said method comprising encapsulating said antitumor drug into a liposome comprising a compound of formula (II)



(II)

where:

R_3 is an acyl chain selected from the group consisting of palmitoyl and stearoyl;

R_4 is an alkyl chain selected from the group consisting of undecyl and tetradecyl; and

X^- is the anion of a pharmacologically acceptable acid, to obtain a liposome containing said antitumor drug,

and

administering said liposome to said subject.

129. (New) The method according to claim 128, in which X^- is selected from the group consisting of chloride; bromide; iodide; aspartate; acid aspartate; citrate; acid citrate; tartrate; acid tartrate; phosphate; acid phosphate; fumarate; acid fumarate; glycerophosphate; glucose phosphate; lactate; maleate; acid maleate; mucate; orotate; oxalate; acid oxalate; sulphate; acid sulphate; trichloroacetate; trifluoroacetate; methane sulphonate; pamoate and acid pamoate.

130. (New) The method according to claim 128, in which the compound of formula (II) is selected from the group consisting of palmitoyl L-carnitine chloride undecyl ester; stearoyl L-carnitine chloride undecyl ester; stearoyl L-carnitine chloride tetradecyl ester; palmitoyl L-carnitine chloride tetradecyl ester.

131. (New) The method according to claim 128, in which said derivative of camptothecin is selected from the group consisting of 7-benzyloxyiminomethylcamptothecin or 7-t-butoxyiminomethylcamptothecin.

132. (New) The method according to claim 128, in which the liposome additionally contains helper lipids.

133. (New) The method according to claim 132, in which said helper lipid is selected from the group consisting of cholesterol, 1-palmitoyl-2-oleoyl phosphatidyl choline or dioleyl phosphatidyl choline.

134. (New) The method according to claim 128, wherein said antitumor drug is 7-t-butoxyiminomethylcamptothecin and said liposome comprises the compound palmitoyl L-carnitine undecyl ester.

135. (New) The method according to claim 128, wherein said antitumor drug is taxol and said liposome comprises the compound palmitoyl L-carnitine undecyl ester.

136. (New) The method according to claim 128, wherein said liposome is administered orally, parenterally, intravenously, intramuscularly, subcutaneously, transdermally or in the form of a nasal or mouth spray.

137. (New) The method according to claim 128, wherein lungs are said target organ.

138. (New) The method according to claim 116, wherein said liposome is in the form of a dry powder.

139. (New) The method according to claim 116, wherein said liposome is adsorbed on an inert support.

140. (New) The method according to claim 139, wherein the inert support is selected from the group consisting of sorbitol, threhalose and mannitol.

141. (New) The composition according to claim 122, wherein said liposome is in the form of a dry powder.

142. (New) The method according to claim 122, wherein said liposome is adsorbed on an inert support.

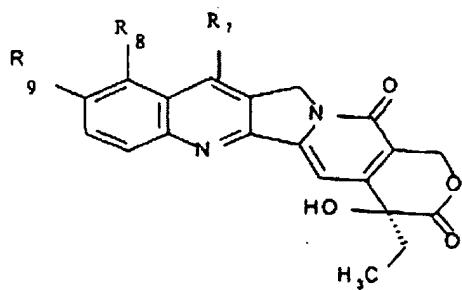
143. (New) The method according to claim 142, wherein the inert support is selected from the group consisting of sorbitol, threhalose, lactose and mannitol.

144. (New) The method according to claim 128, wherein said liposome is in the form of a dry powder.

145. (New) The method according to claim 128, wherein said liposome is adsorbed on an inert support.

146. (New) The method according to claim 145, wherein the inert support is selected from the group consisting of sorbitol, threhalose and mannitol.

147. (New) A method of transporting an antitumor drug to the lungs of a subject in need of antitumor treatment, wherein said drug is selected from the group consisting of taxol or a camptothecin derivative of formula



wherein: R₇ is a -C(R₁₁)=N-O_(n)R₁₀ group, wherein R₁₀ is hydrogen or a C₁-C₅ alkyl or C₂-C₅ alkenyl group, linear or branched or C₃-C₁₀ cycloalkyl, group or a linear or branched (C₃-C₁₀) cycloalkyl - (C₁-C₅) alkyl group, or C₆-C₁₄ aryl, or a linear or branched (C₆-C₁₄) aryl - (C₁-

C_5) alkyl group, or a heterocyclic or linear or branched heterocyclo - (C_1-C_5) alkyl group, said heterocyclic group containing at least a heteroatom selected from the group consisting of nitrogen atom, optionally substituted with a (C_1-C_5) alkyl group, and/or oxygen and/or sulfur; said alkyl, alkenyl, cycloalkyl, cycloalkylalkyl, aryl, aryl-alkyl, heterocyclic or heterocyclo-alkyl groups, being optionally substituted with other groups selected from the group consisting of: halogen, hydroxy, C_1-C_5 alkyl, C_1-C_5 alkoxy, phenyl, cyano, nitro, $-NR_{12}R_{13}$, wherein R_{12} and R_{13} , which may be the same or different, are hydrogen, linear or branched (C_1-C_5) alkyl; a pharmaceutically acceptable ester of the $-COOH$ group; or the $-CONR_{14}R_{15}$ group, wherein R_{14} and R_{15} , which may be the same or different, are hydrogen or linear or branched (C_1-C_5) alkyl; or R_{10} is a (C_6-C_{10}) aroyl residue optionally substituted by one or more groups selected from the group consisting of: halogen, hydroxy, linear or branched (C_1-C_5) alkyl, C_1-C_5 alkoxy, phenyl, cyano, nitro, $-NR_{16}R_{17}$, wherein R_{16} and R_{17} , which may be the same or different, are hydrogen, linear or branched (C_1-C_8) alkyl;

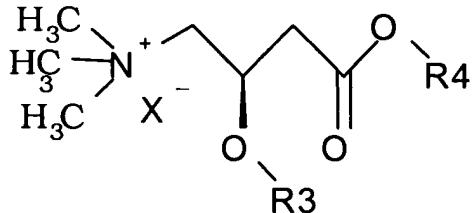
n is the number 0 or 1;

R_{11} is hydrogen, linear or branched C_1-C_5 alkyl, linear or branched C_2-C_5 alkenyl, C_3-C_{10} cycloalkyl, (C_3-C_{10}) cycloalkyl - linear or branched (C_1-C_5) alkyl, C_6-C_{14} aryl, (C_6-C_{14}) aryl - linear or branched alkyl (C_1-C_5);

R_8 and R_9 , which may be the same or different are hydrogen, hydroxy, linear or branched C_1-C_5 alkoxy;

their N_1 -oxides, their single isomers, in particular the syn and anti isomers of the- $C(R_{11})=N-O_{(n)}R_{10}$ group, their enantiomers, diastereoisomers and admixtures, the pharmaceutically acceptable salts thereof;

said method comprising encapsulating said antitumor drug into a liposome comprising a compound of formula (II)



(II)

where:

R_3 is an acyl chain selected from the group consisting of palmitoyl and stearoyl;

R_4 is an alkyl chain selected from the group consisting of undecyl and tetradecyl; and

X^- is the anion of a pharmacologically acceptable acid, to obtain a liposome containing said antitumor drug,

and

administering said liposome to said subject.

148. (New) The method according to claim 147, in which X^- is selected from the group consisting of chloride; bromide; iodide; aspartate; acid aspartate; citrate; acid citrate; tartrate; acid tartrate; phosphate; acid phosphate; fumarate; acid fumarate; glycerophosphate; glucose phosphate; lactate; maleate; acid maleate; mucate; orotate; oxalate; acid oxalate; sulphate; acid sulphate; trichloroacetate; trifluoroacetate; methane sulphonate; pamoate and acid pamoate.

149. (New) The method according to claim 147, in which the compound of formula (II) is selected from the group consisting of palmitoyl L-carnitine chloride undecyl ester; stearoyl L-carnitine chloride undecyl ester; stearoyl L-carnitine chloride tetradecyl ester; palmitoyl L-carnitine chloride tetradecyl ester.

150. (New) The method according to claim 147, in which said derivative of camptothecin is selected from the group consisting of 7-benzyloxyiminomethylcamptothecin or 7-t-butoxyiminomethylcamptothecin.

151. (New) The method according to claim 147, in which the liposome additionally contains helper lipids.

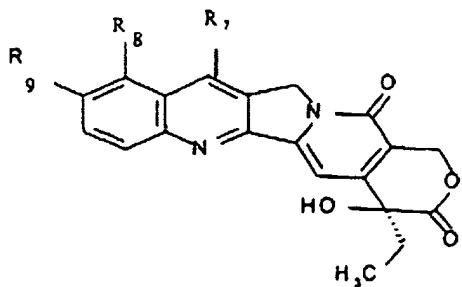
152. (New) The method according to claim 151, in which said helper lipid is selected from the group consisting of cholesterol, 1-palmitoyl-2-oleoyl phosphatidyl choline or dioleyl phosphatidyl choline.

153. (New) The method according to claim 147, wherein said antitumor drug is 7-t-butoxyiminomethylcamptothecin and said liposome comprises the compound palmitoyl L-carnitine undecyl ester.

154. (New) The method according to claim 147, wherein said antitumor drug is taxol and said liposome comprises the compound palmitoyl L-carnitine undecyl ester.

155. (New) The method according to claim 147, wherein said liposome is administered orally, parenterally, intravenously, intramuscularly, subcutaneously, transdermally or in the form of a nasal or mouth spray.

156. (New) A method of intracellular delivery of an antitumor drug into tumor cells to the lungs of a subject in need of antitumor treatment, wherein said drug is selected from the group consisting of taxol or a camptothecin derivative of formula



wherein: R₇ is a -C(R₁₁)=N-O_(n)R₁₀ group, wherein R₁₀ is hydrogen or a C₁-C₅ alkyl or C₂-C₅ alkenyl group, linear or branched or C₃-C₁₀ cycloalkyl, group or a linear or branched (C₃-C₁₀) cycloalkyl - (C₁-C₅) alkyl group, or C₆-C₁₄ aryl, or a linear or branched (C₆-C₁₄) aryl - (C₁-C₅) alkyl group, or a heterocyclic or linear or branched heterocyclo - (C₁-C₅) alkyl group, said heterocyclic group containing at least a heteroatom selected from the group consisting of nitrogen atom, optionally substituted with a (C₁-C₅) alkyl group, and/or oxygen and/or sulfur; said alkyl, alkenyl, cycloalkyl, cycloalkylalkyl, aryl, aryl-alkyl, heterocyclic or heterocyclo-alkyl groups, being optionally substituted with other groups selected from the group consisting of: halogen, hydroxy, C₁-C₅ alkyl, C₁-C₅ alkoxy, phenyl, cyano, nitro, -NR₁₂R₁₃, wherein R₁₂ and R₁₃, which may be the same or different, are hydrogen, linear or branched (C₁-C₅) alkyl; a pharmaceutically acceptable ester of the -COOH group; or the-CONR₁₄R₁₅ group, wherein R₁₄ and R₁₅, which may be the same or different, are hydrogen or linear or branched (C₁-C₅) alkyl; or R₁₀ is a (C₆-C₁₀) aroyl residue optionally substituted by one or more groups selected from the group consisting of: halogen, hydroxy, linear or branched (C₁-C₅) alkyl, C₁-C₅ alkoxy, phenyl, cyano, nitro, -NR₁₆R₁₇, wherein R₁₆ and R₁₇, which may be the same or different, are hydrogen, linear or branched (C₁-C₈) alkyl;

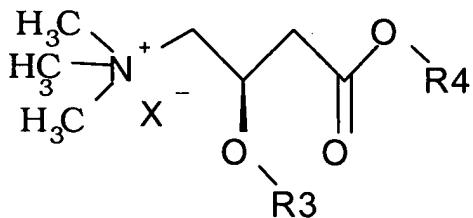
n is the number 0 or 1;

R₁₁ is hydrogen, linear or branched C₁-C₅ alkyl, linear or branched C₂-C₅ alkenyl, C₃-C₁₀ cycloalkyl, (C₃-C₁₀) cycloalkyl - linear or branched (C₁-C₅) alkyl, C₆-C₁₄ aryl, (C₆-C₁₄) aryl - linear or branched alkyl (C₁-C₅);

R₈ and R₉, which may be the same or different are hydrogen, hydroxy, linear or branched C₁-C₅ alkoxy;

their N₁-oxides, their single isomers, in particular the syn and anti isomers of the-C(R₁₁)=N-O_(n)R₁₀ group, their enantiomers, diastereoisomers and admixtures, the pharmaceutically acceptable salts thereof;

said method comprising encapsulating said antitumor drug into a liposome comprising a compound of formula (II)



(II)

where:

- i. R₃ is palmitoyl and R₄ is undecyl; or
- ii. R₃ is stearoyl and R₄ is undecyl; or
- iii. R₃ is stearoyl and R₄ is tetradecyl; or
- iv. R₃ is palmitoyl and R₄ is undecyl;

and

X⁻ is the anion of a pharmacologically acceptable acid, to obtain a liposome containing said antitumor drug,

and

administering said liposome to said subject.

157. (New) The method according to claim 156, in which X^- is selected from the group consisting of chloride; bromide; iodide; aspartate; acid aspartate; citrate; acid citrate; tartrate; acid tartrate; phosphate; acid phosphate; fumarate; acid fumarate; glycerophosphate; glucose phosphate; lactate; maleate; acid maleate; mucate; orotate; oxalate; acid oxalate; sulphate; acid sulphate; trichloroacetate; trifluoroacetate; methane sulphonate; pamoate and acid pamoate.

158. (New) The method according to claim 156, in which said derivative of camptothecin is selected from the group consisting of 7-benzyloxyiminomethylcamptothecin or 7-t-butoxyiminomethylcamptothecin.

159. (New) The method according to claim 156, in which the liposome additionally contains helper lipids.

160. (New) The method according to claim 159, in which said helper lipid is selected from the group consisting of cholesterol, 1-palmitoyl-2-oleyl phosphatidyl choline or dioleyl phosphatidyl choline.

161. (New) The method according to claim 156, wherein said antitumor drug is 7-t-butoxyiminomethylcamptothecin and said liposome comprises the compound palmitoyl L-carnitine undecyl ester.

162. (New) The method according to claim 156, wherein said antitumor drug is taxol and said liposome comprises the compound palmitoyl L-carnitine undecyl ester.

163. (New) The method according to claim 156, wherein said liposome is administered orally, parenterally, intravenously, intramuscularly, subcutaneously, transdermally or in the form of a nasal or mouth spray.